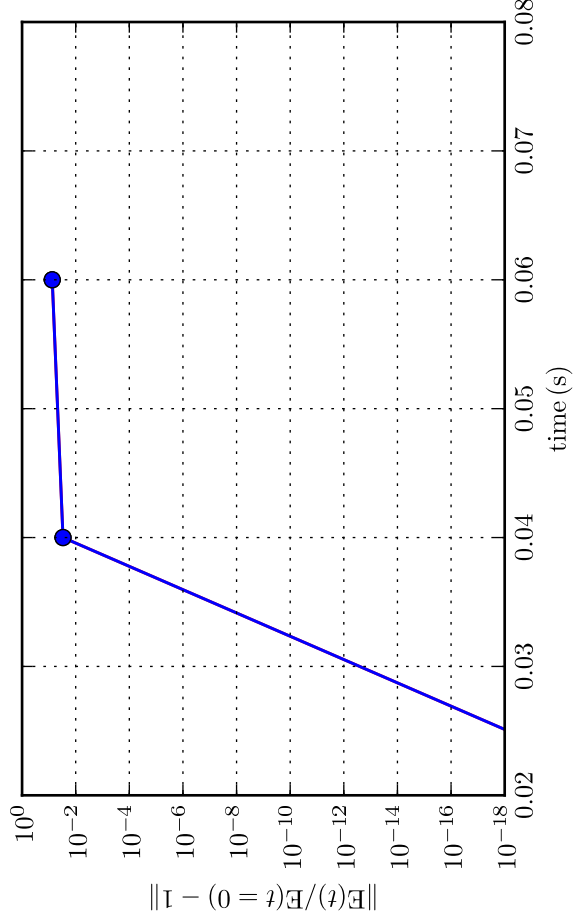
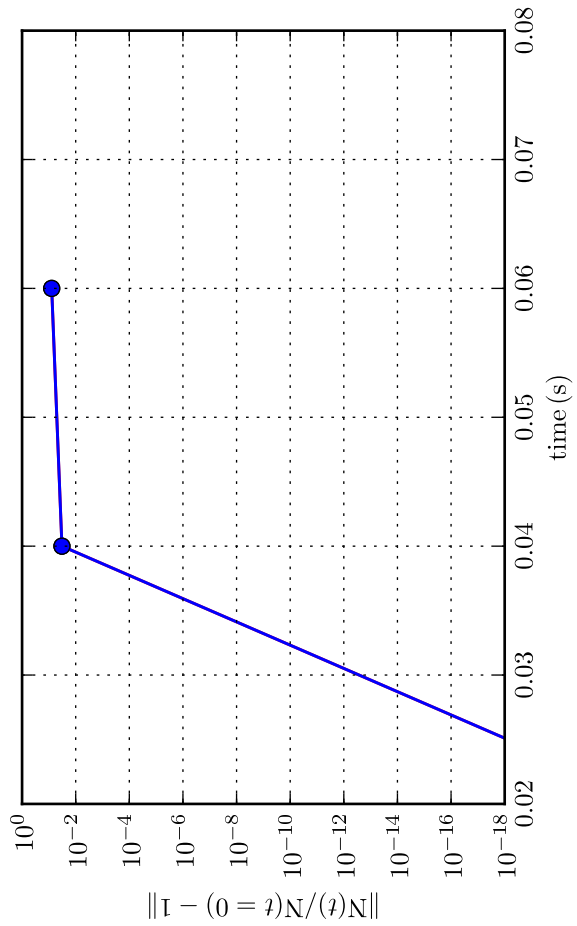
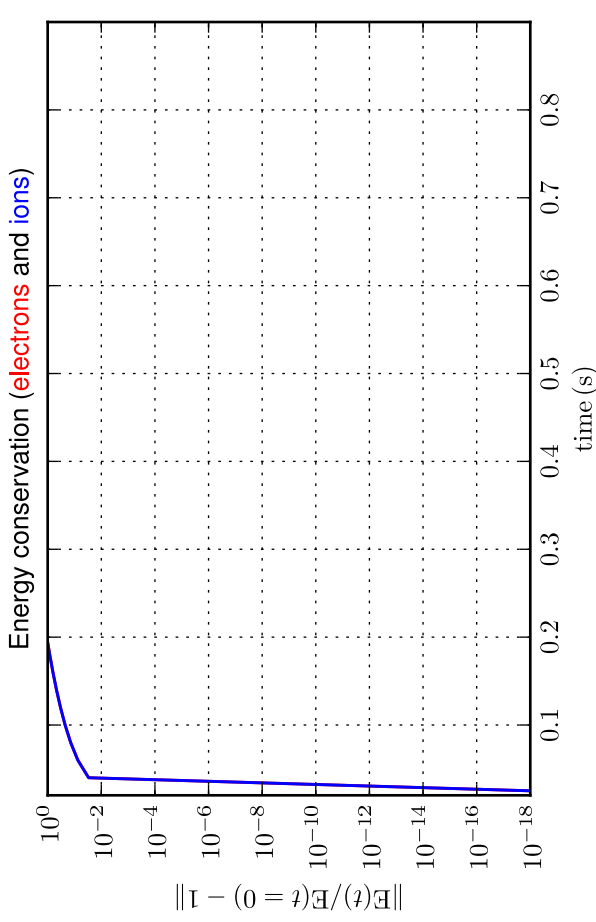
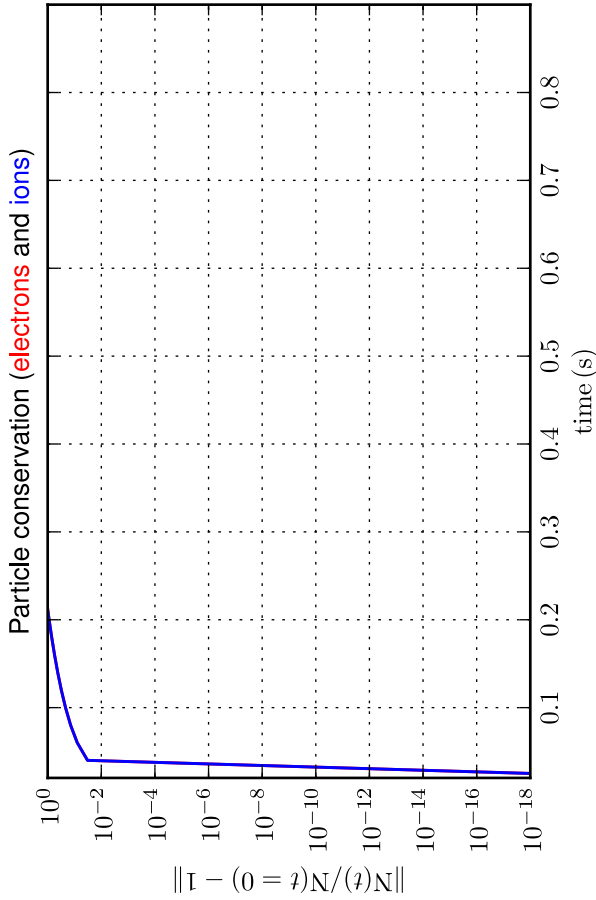
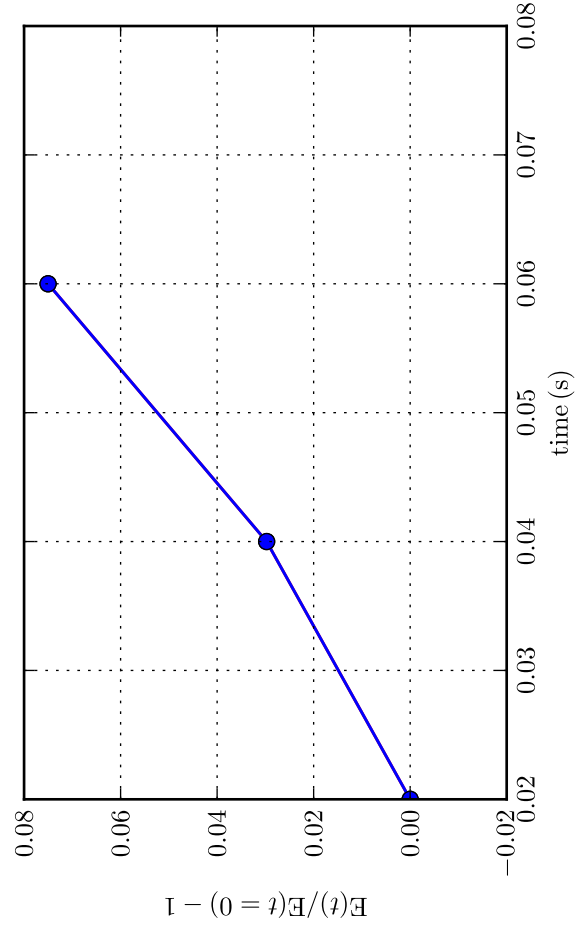
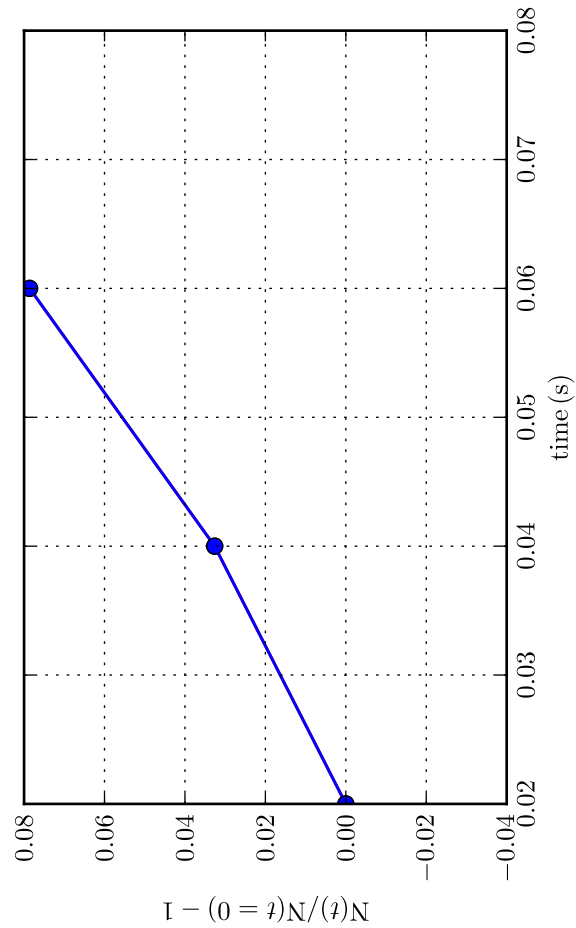
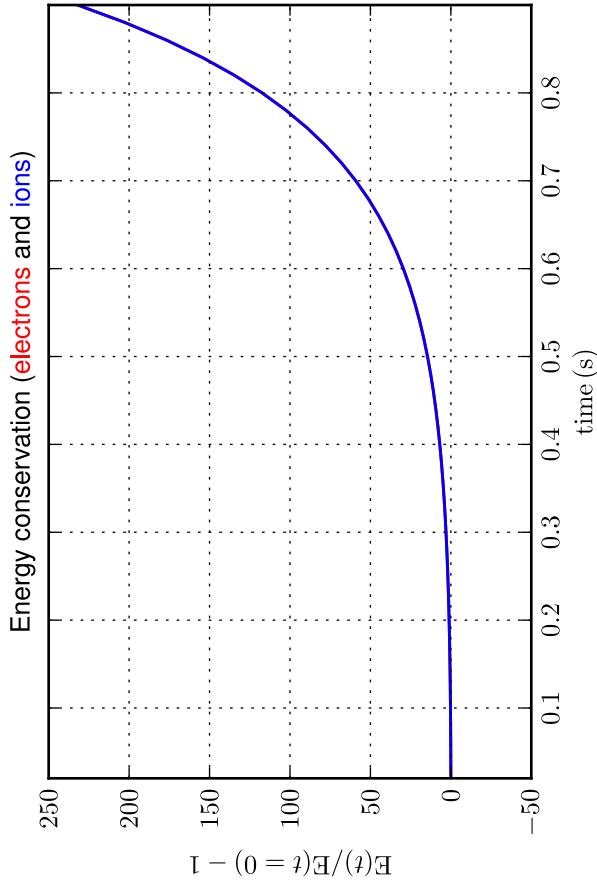
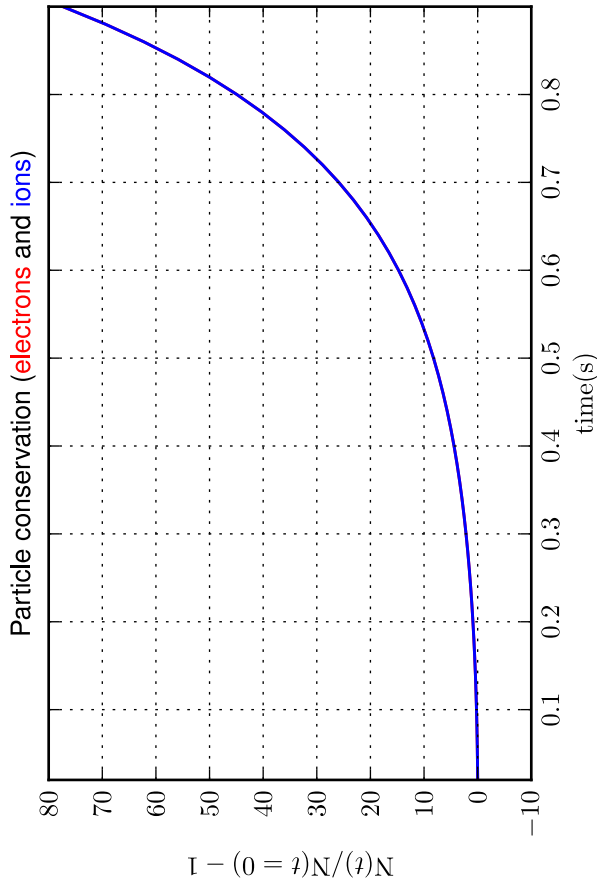


Part. & Energy conservation [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_p = 501$]
 Comparison with initial solution - log scale; total time and zoom over time

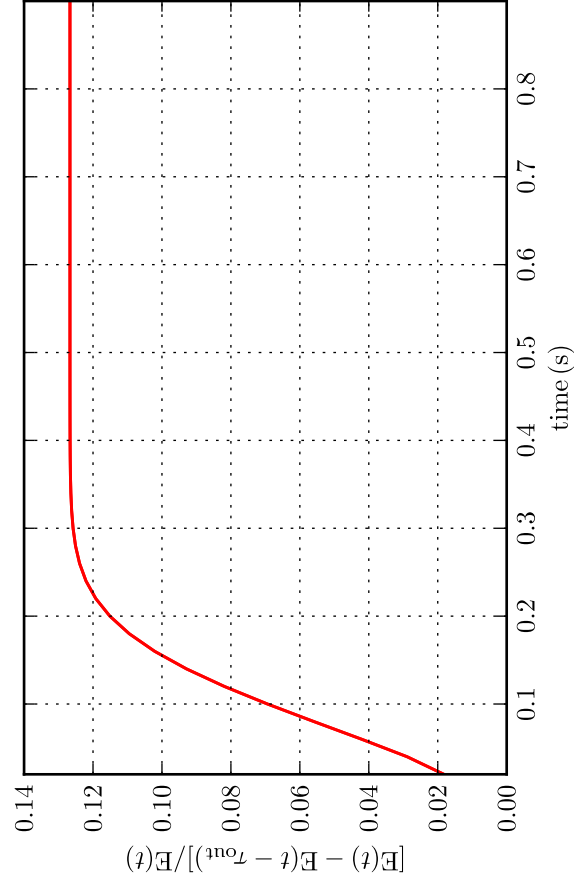
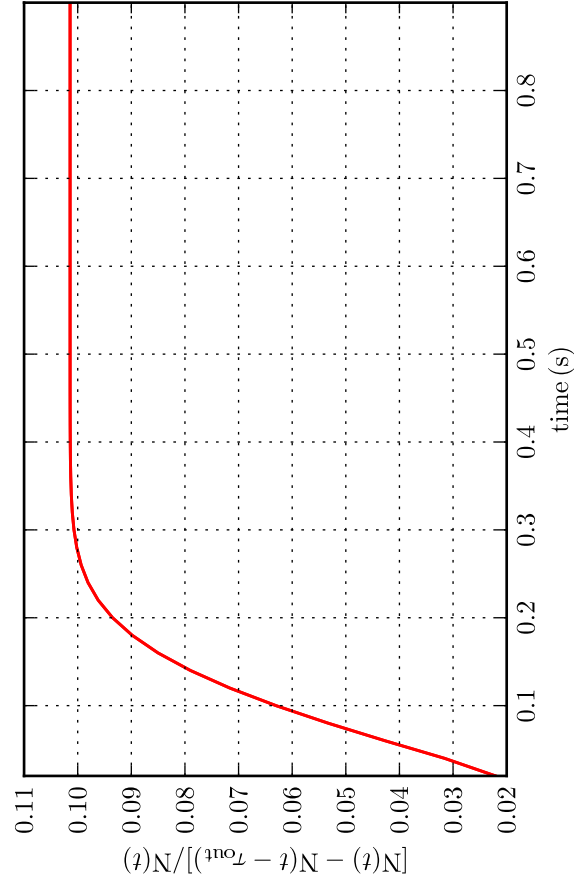
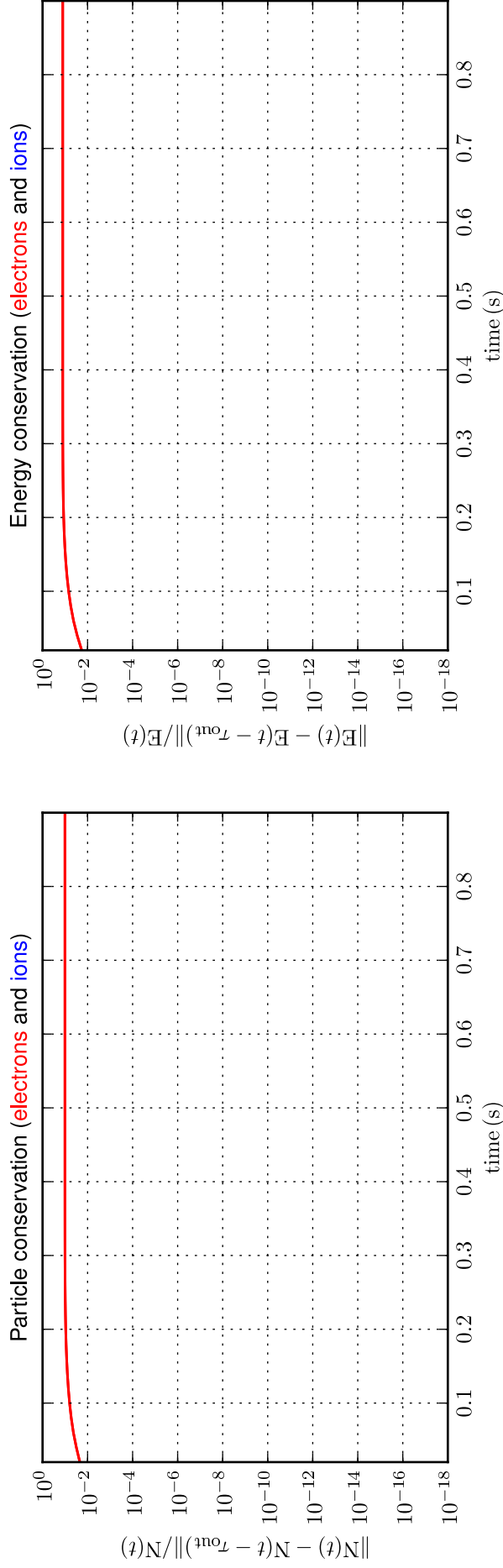


Part. & Energy conservation [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_p = 501$]

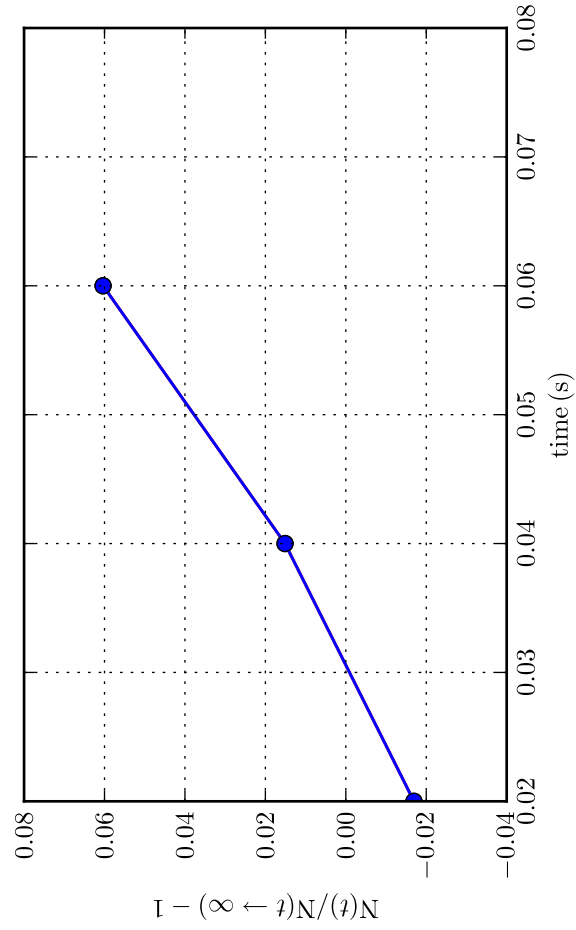
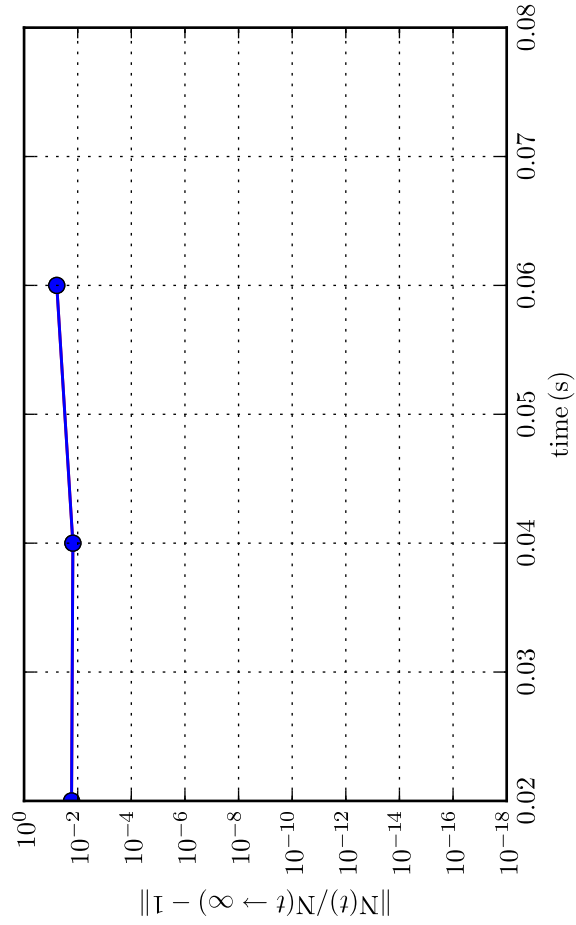
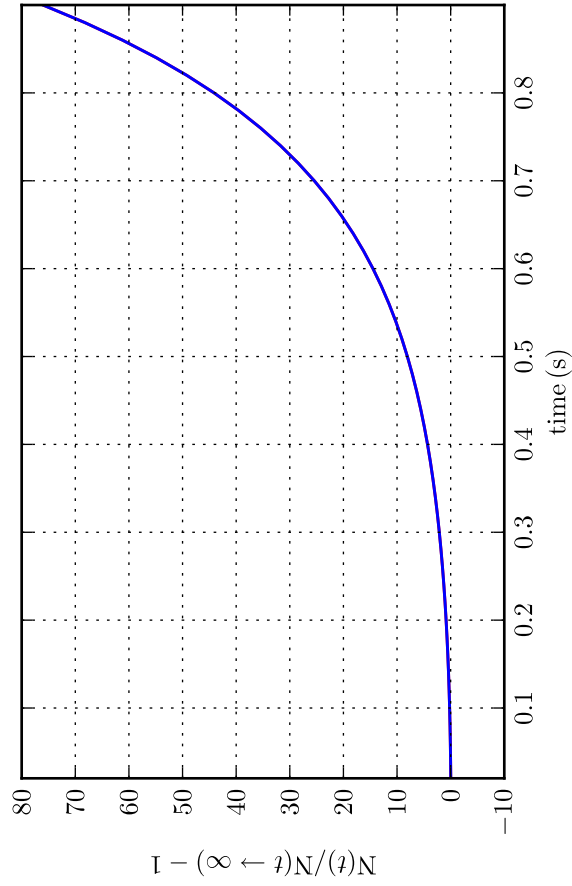
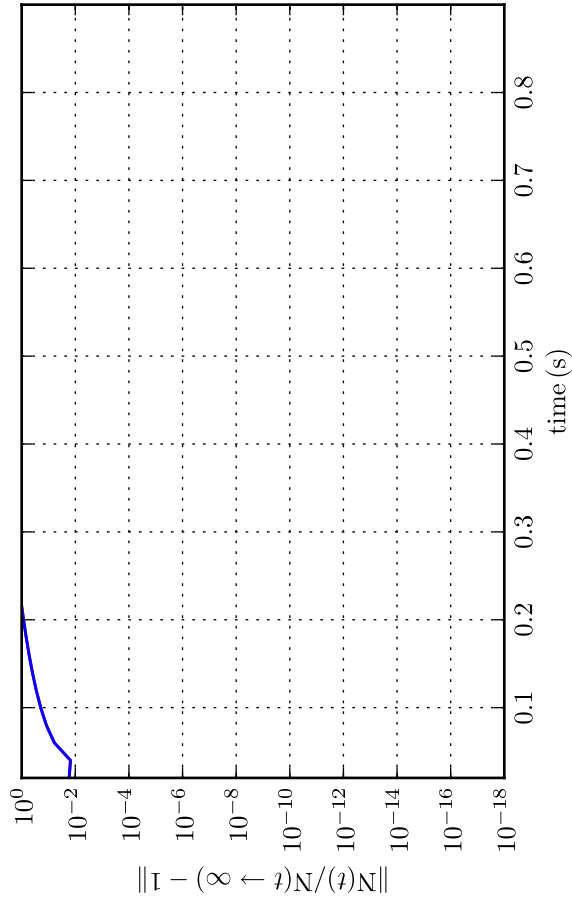
Comparison with initial solution - linear scale; total time and zoom over time



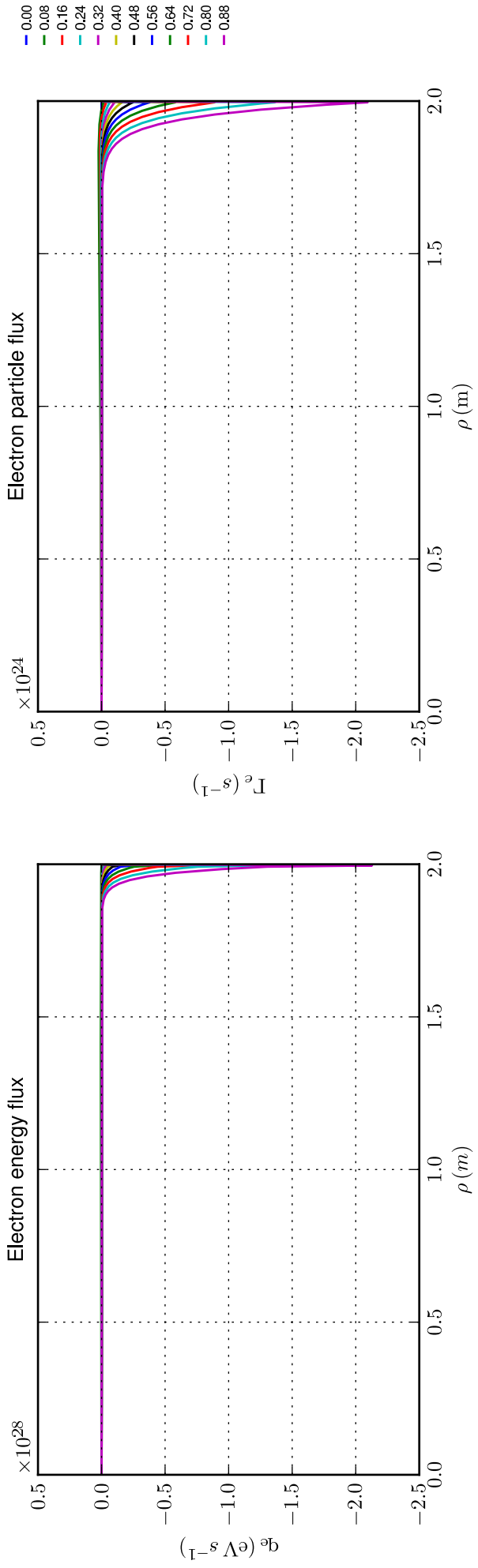
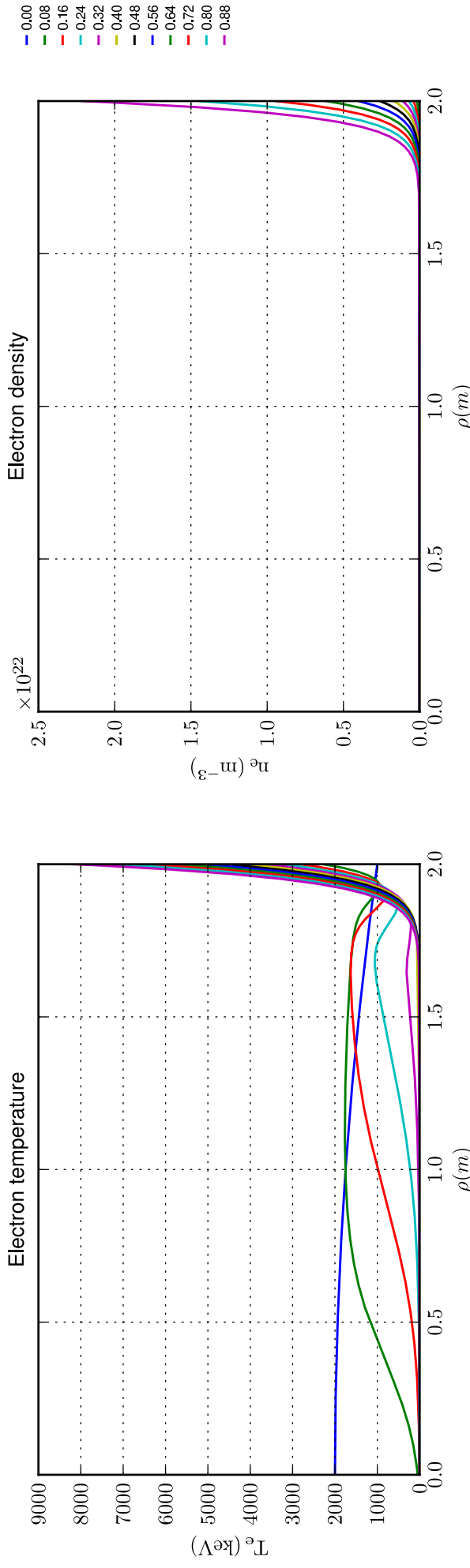
Part. & Energy conservation [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_p = 501$]
Comparison with previous time-sampled (τ_{out}) solution - log and linear scales



Particle conservation [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_p = 501$]
 Comparison with asymptotic solution (electrons and ions); total time and zoom over time

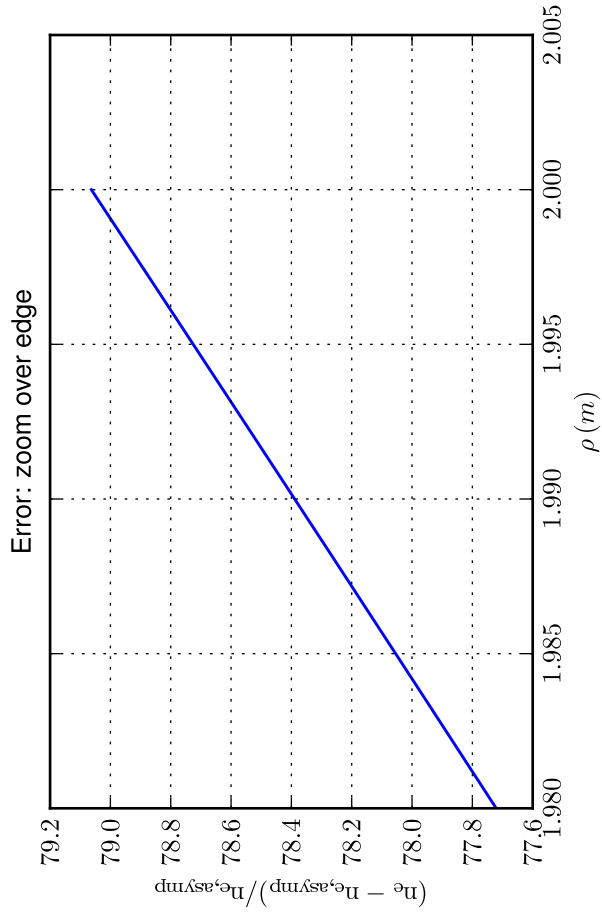
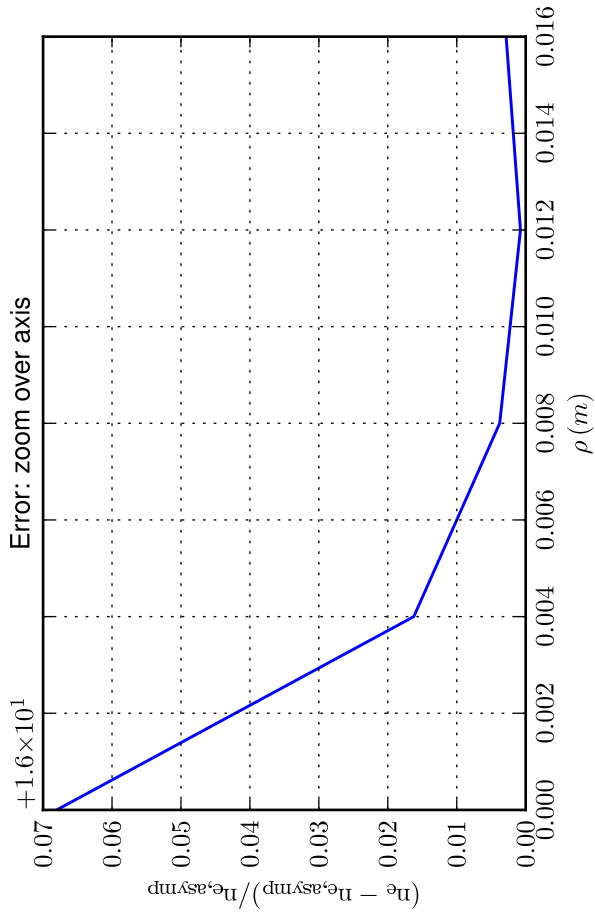
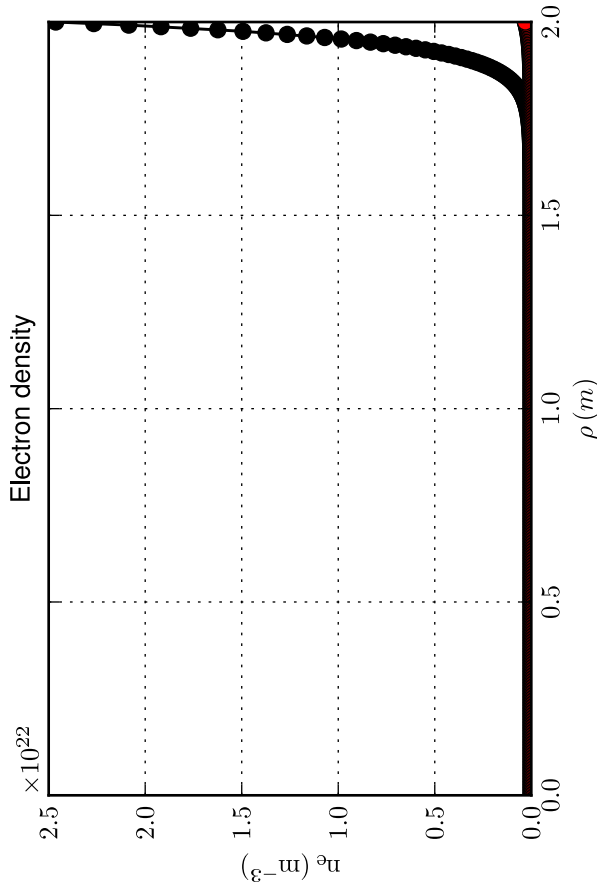
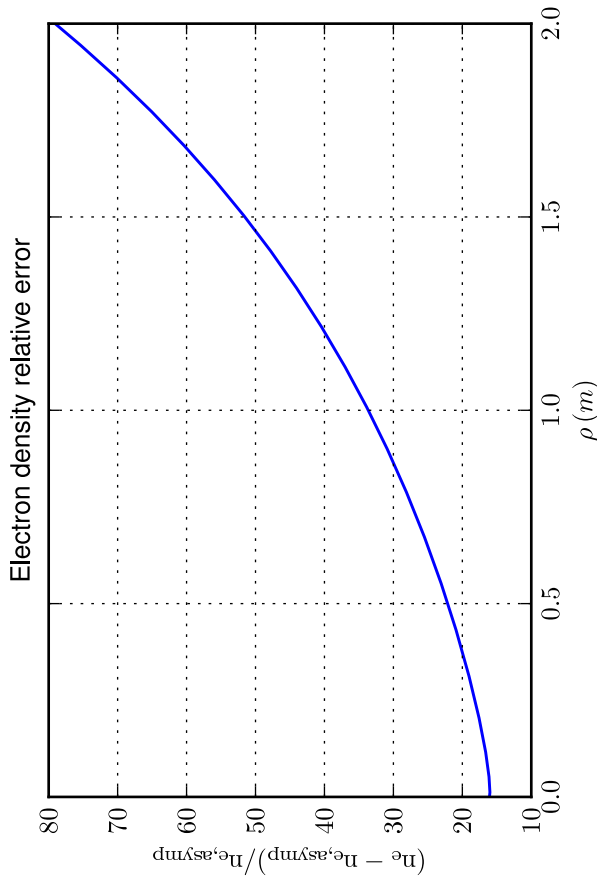


Profiles [Case: 1.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]
 Time sampling: total simulation time/10



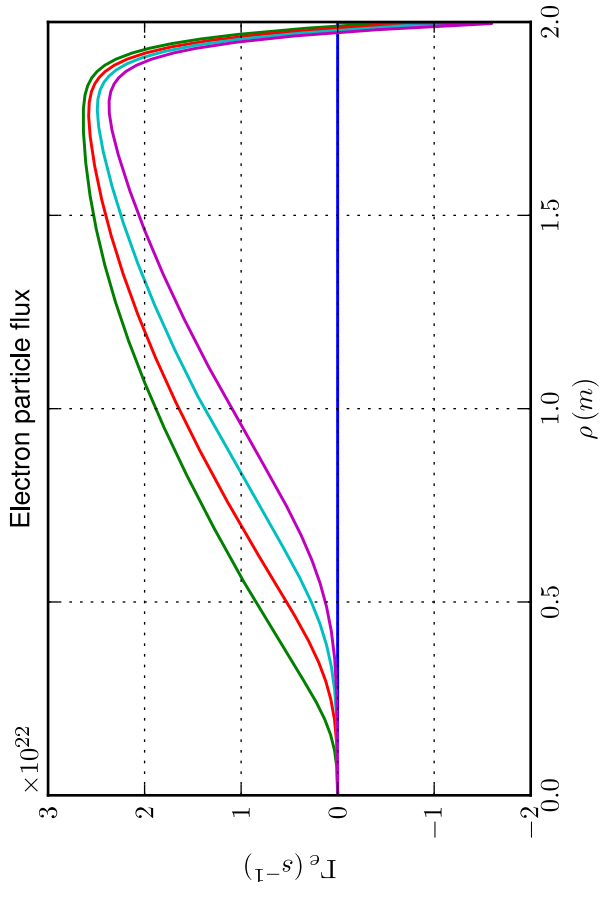
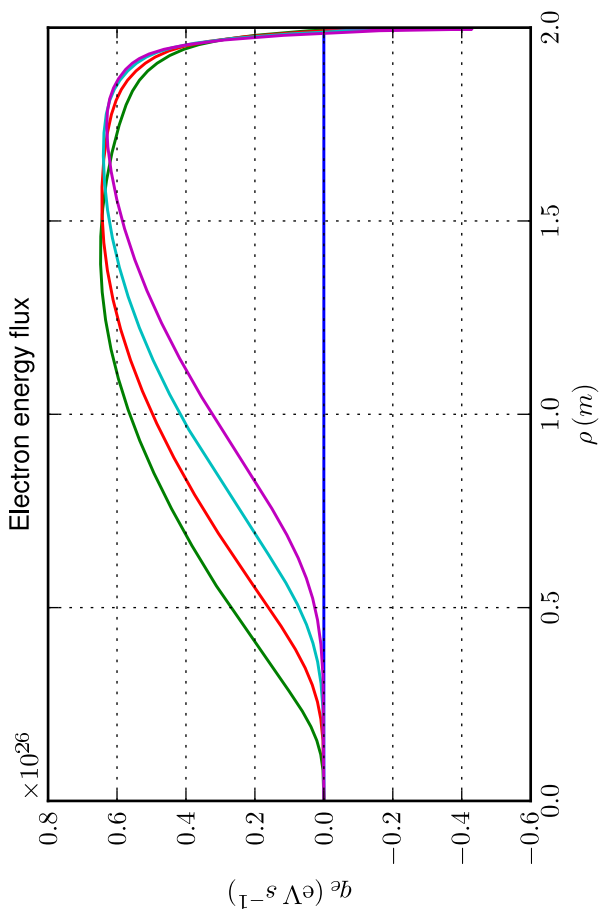
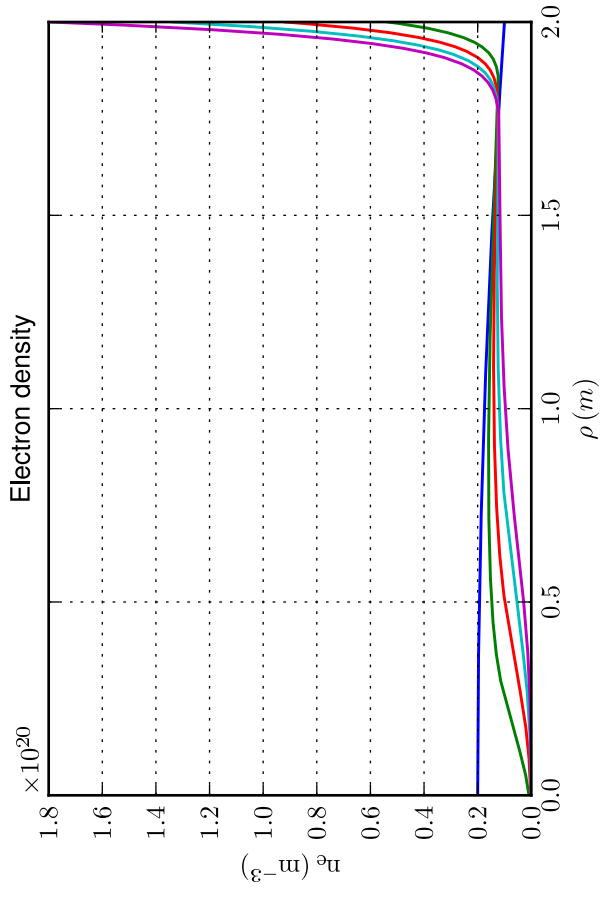
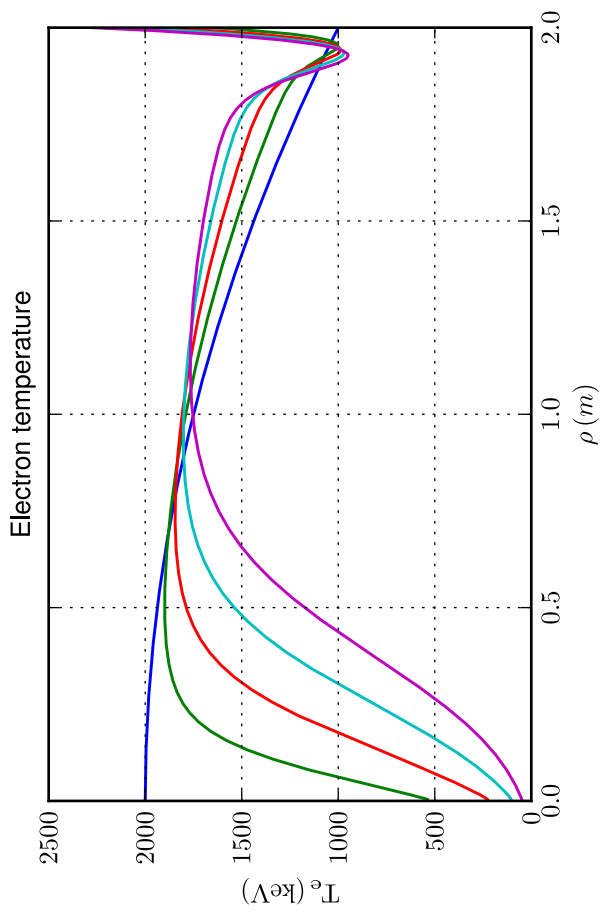
Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]

Comparison with asymptotic solution



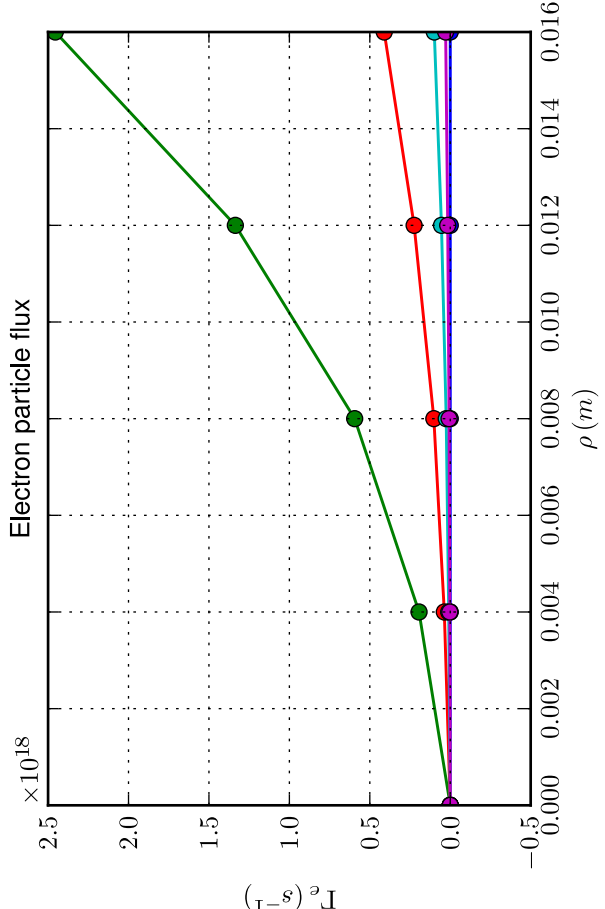
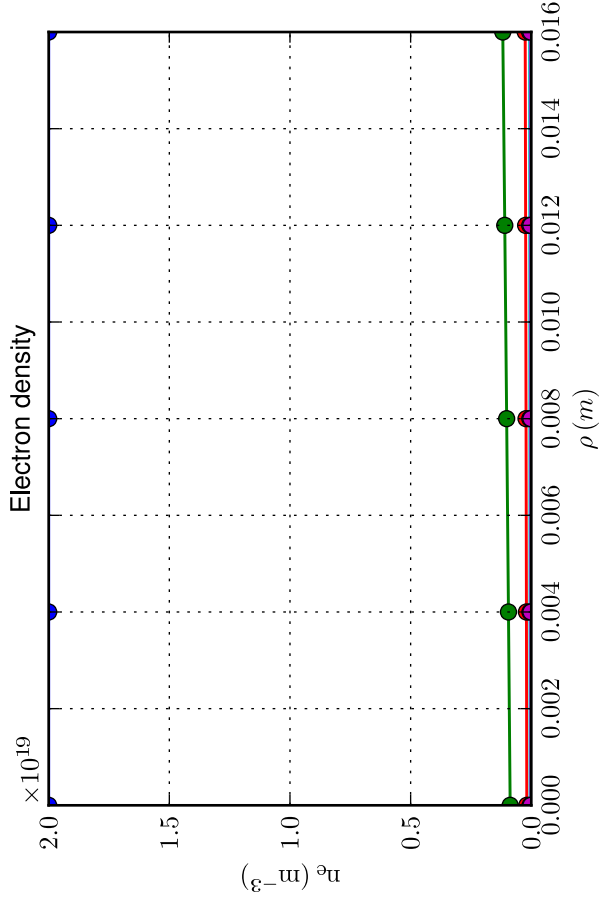
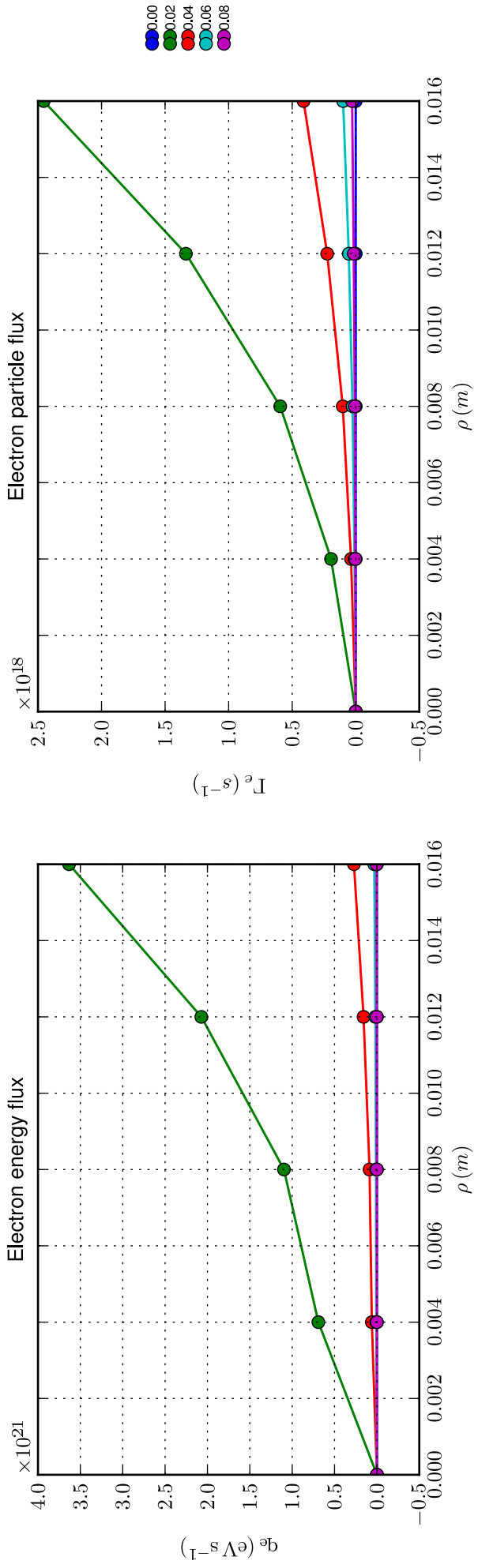
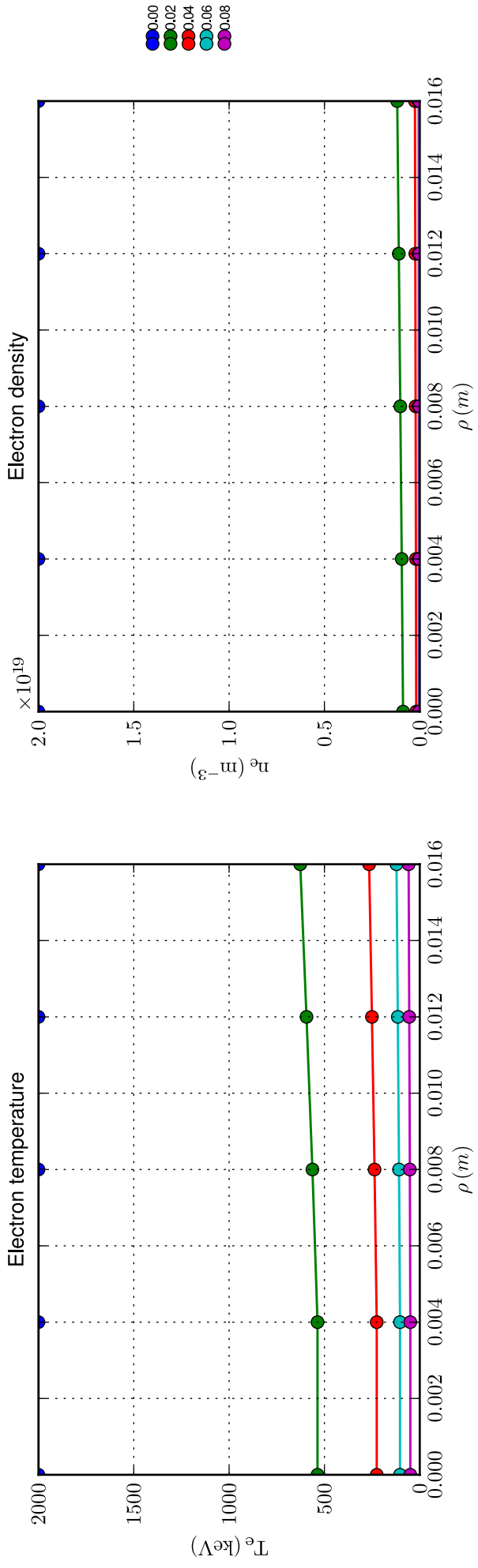
Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_p = 501$]

Time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.10 \text{ s}$

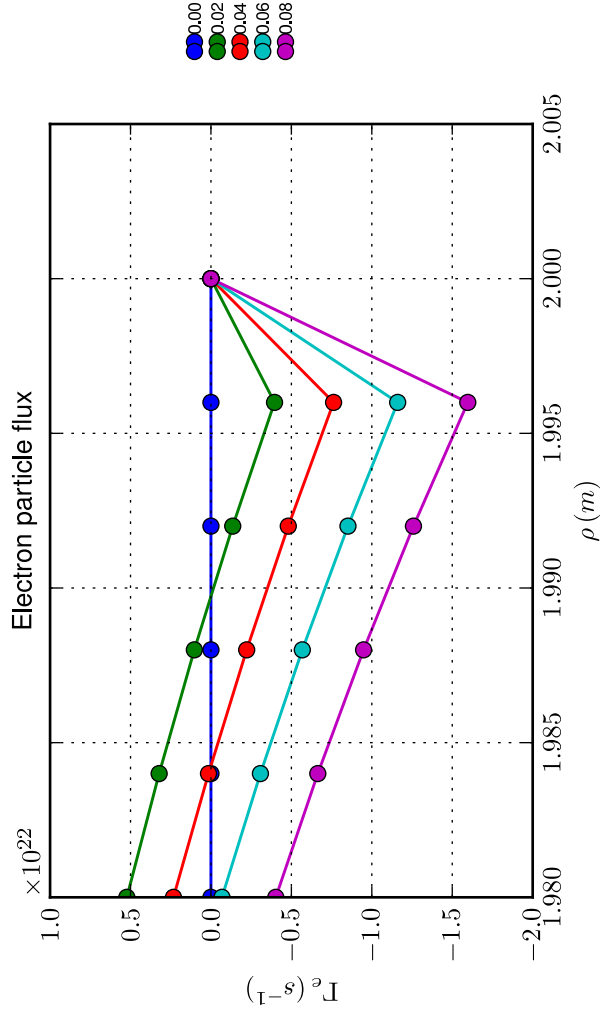
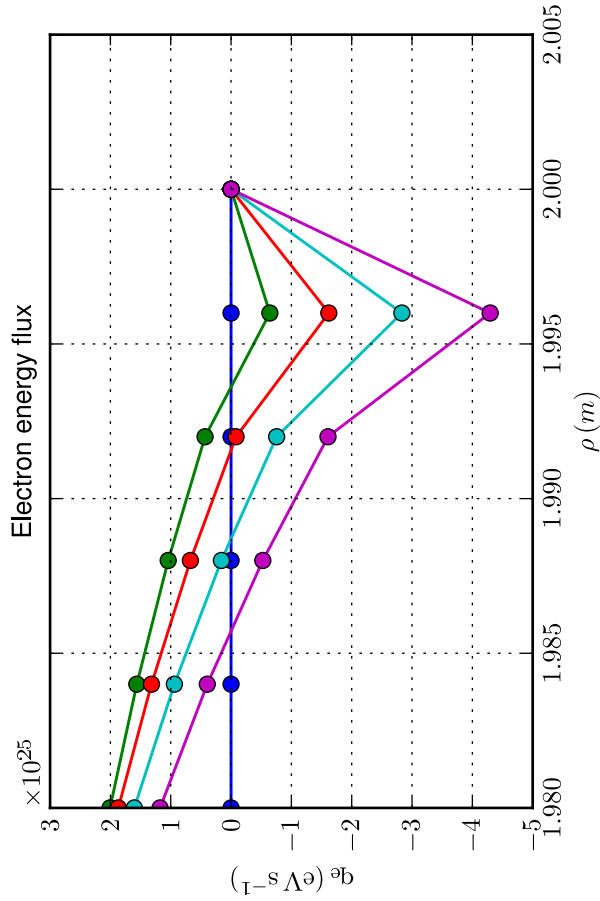
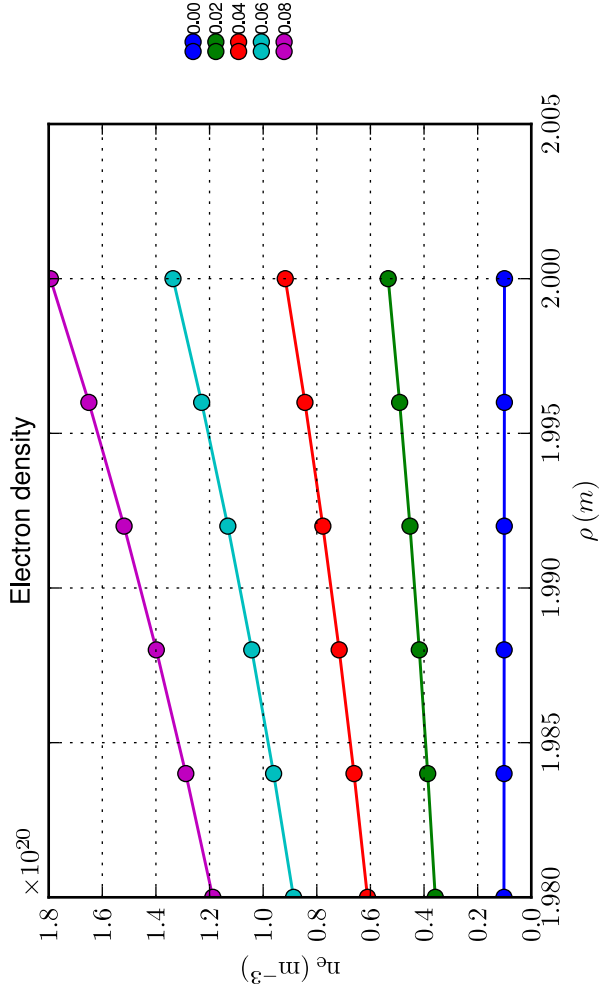
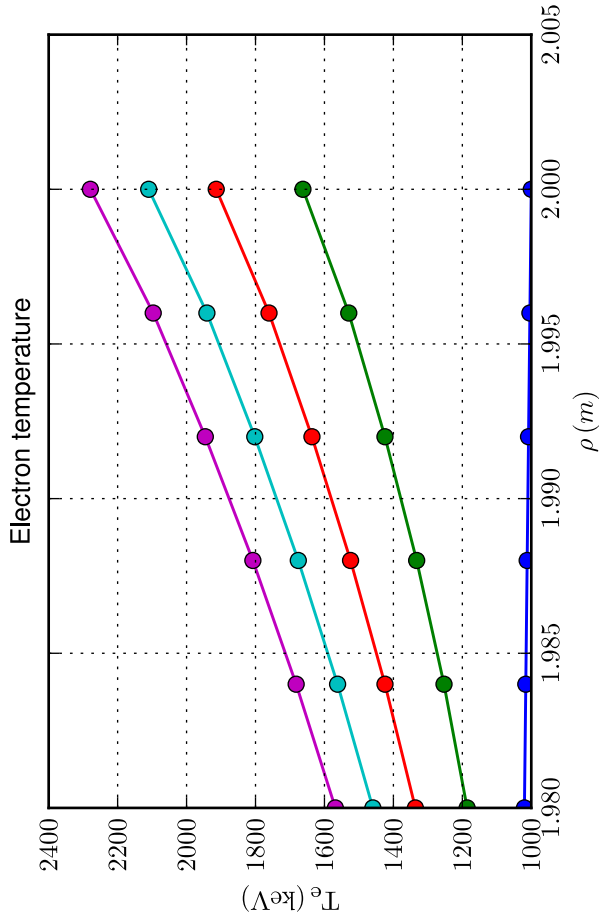


0.00
0.02
0.04
0.06
0.08

Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]
 Spatial zoom over magnetic axis; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (Va/D)| = 0.10 \text{ s}$

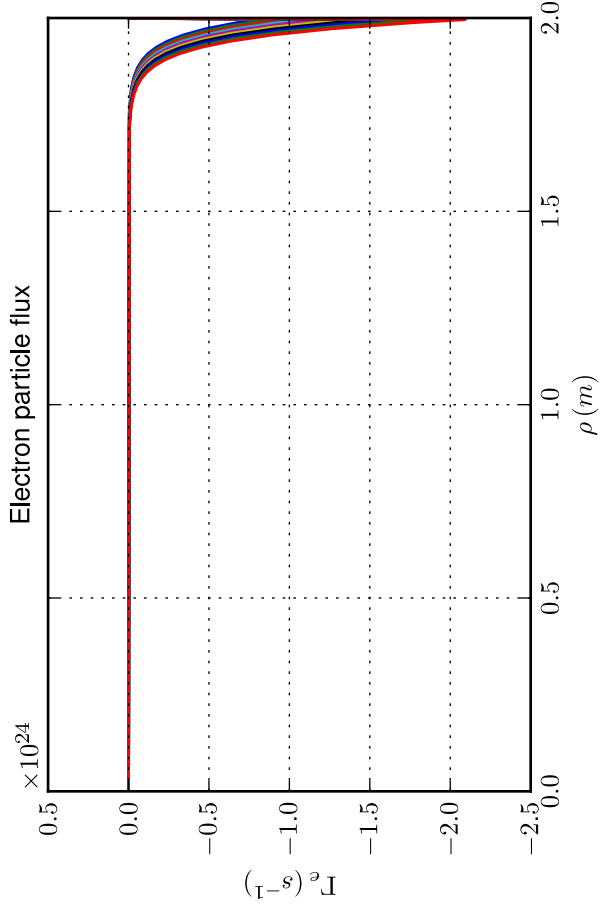
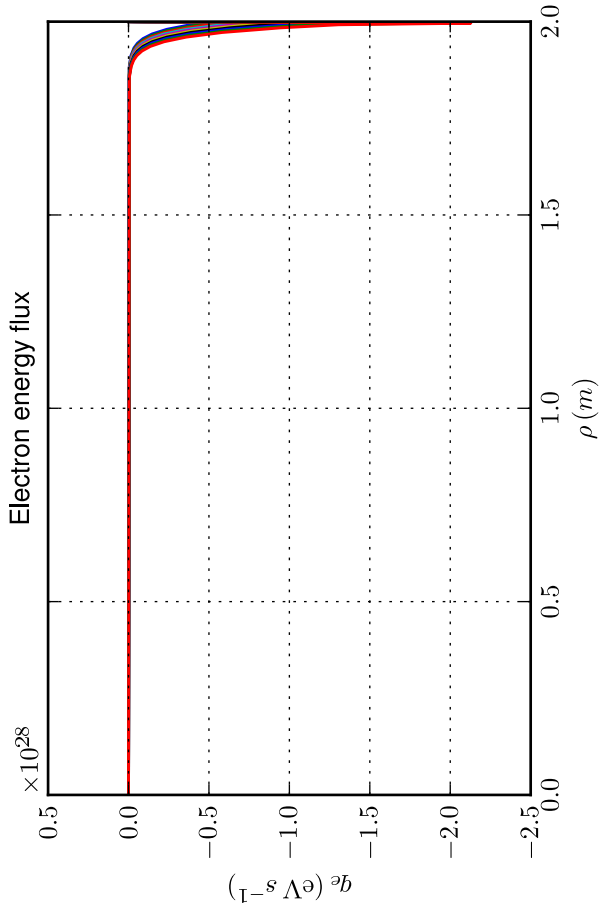
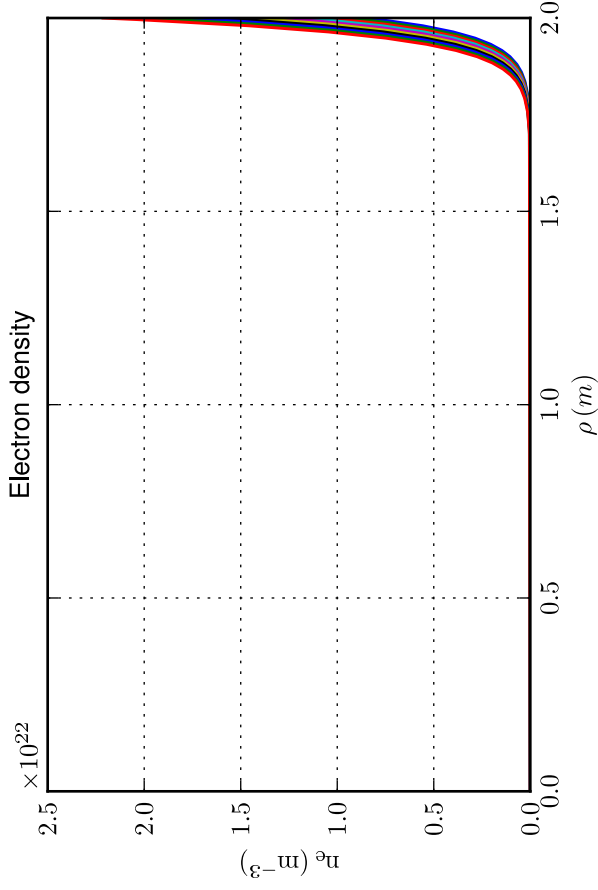
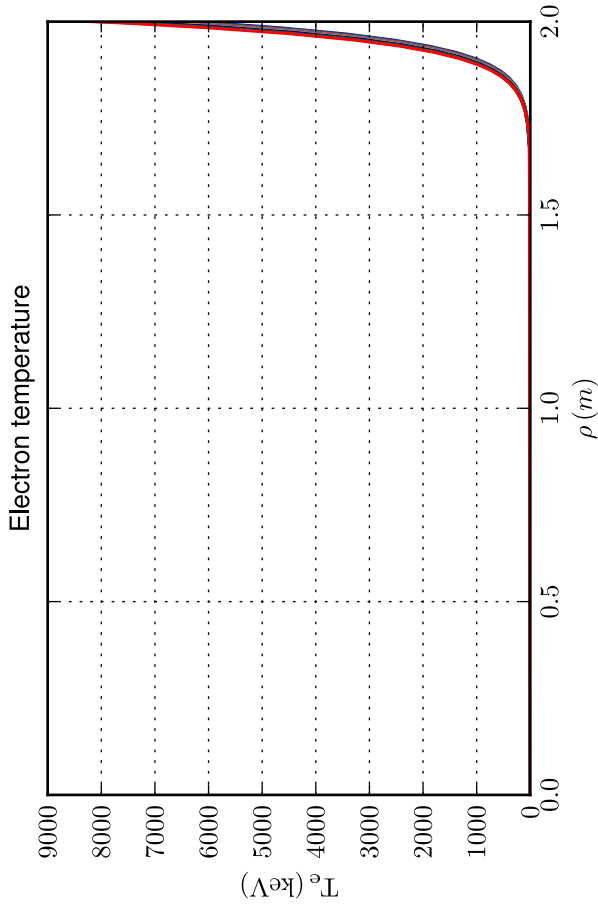


Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]
 Spatial zoom over edge; time sampling: first 10 time slices or zoom over time $0.1 \times (a^2/D)/|1 - (V_a/D)| = 0.10 \text{ s}$



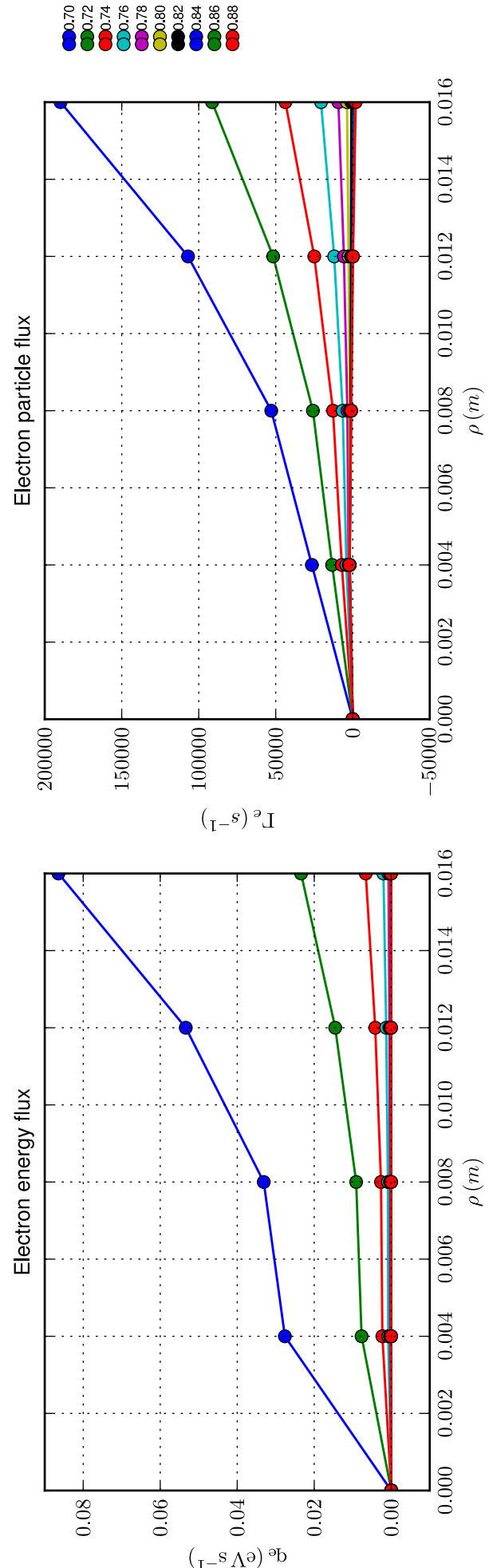
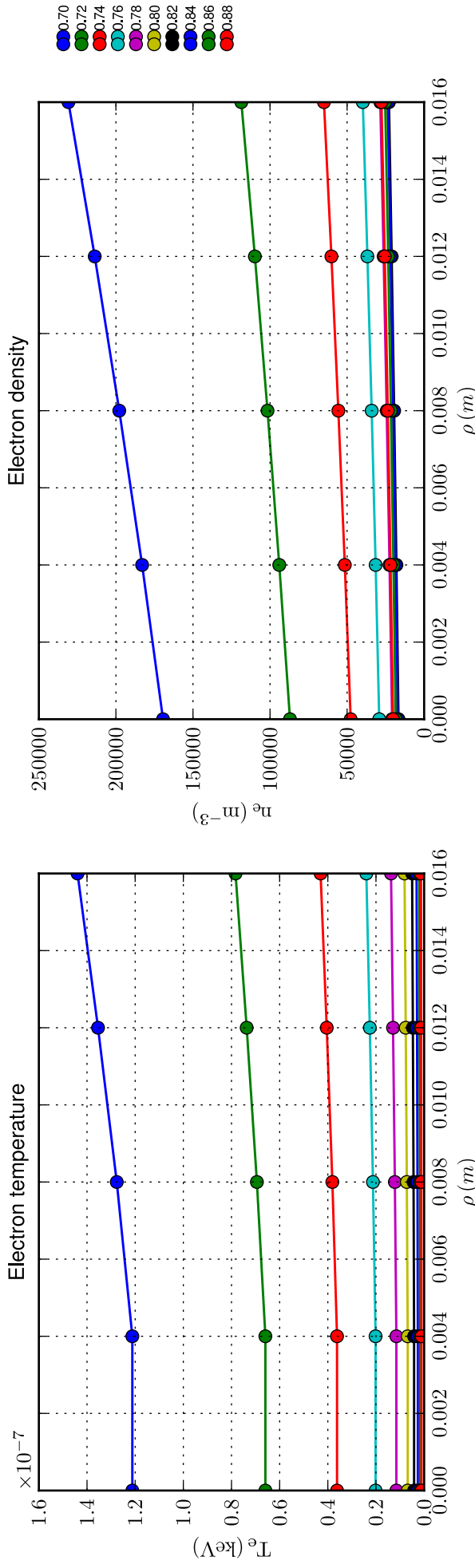
Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]

Time sampling: last 10 time slices



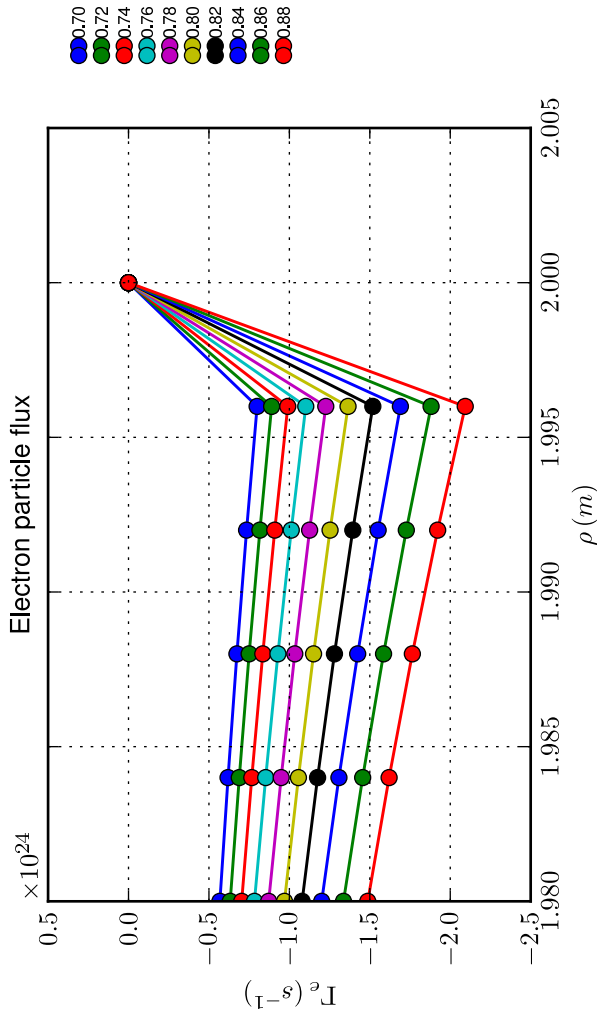
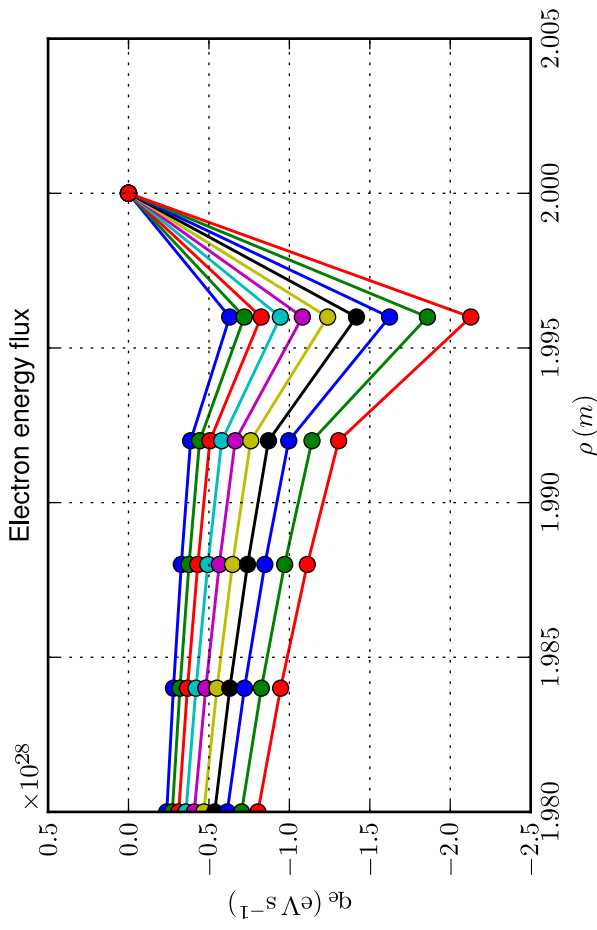
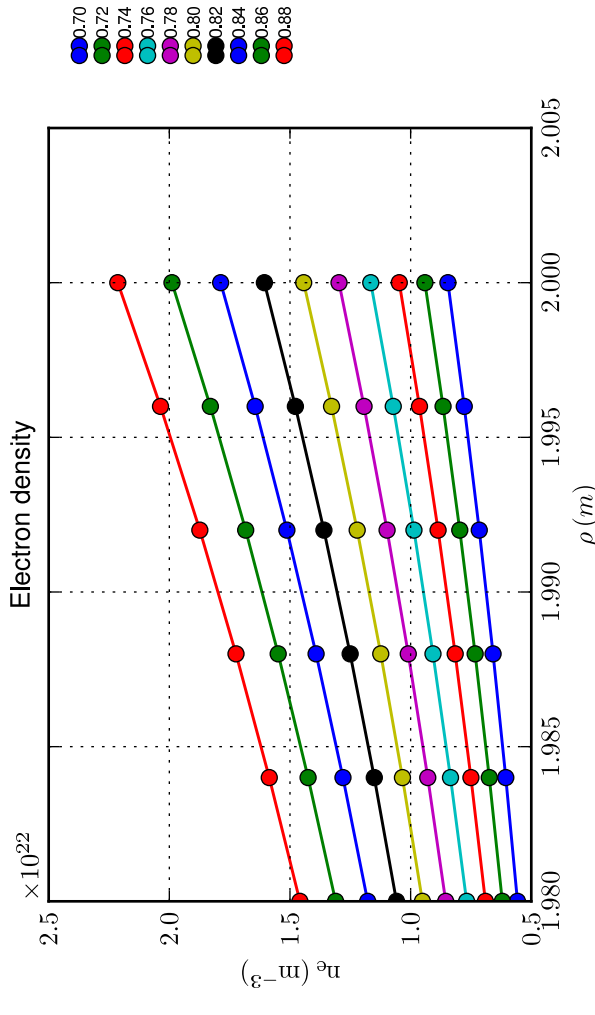
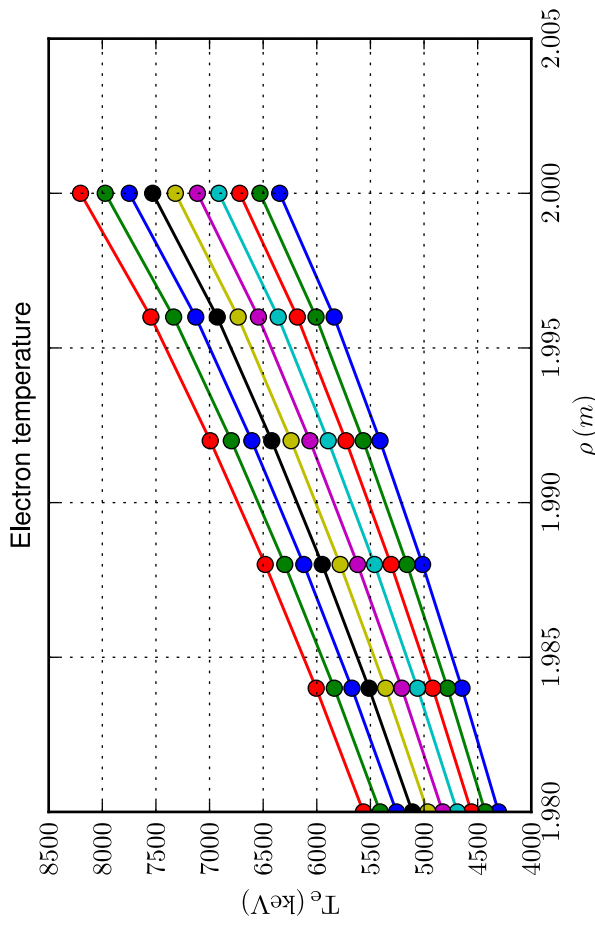
Legend for time slices: 0.70, 0.72, 0.74, 0.76, 0.78, 0.80, 0.82, 0.84, 0.86, 0.88

Profiles [Case: I.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]
 Spatial zoom over magnetic axis; time sampling: last 10 time slices



Profiles [Case: 1.1.5.d, Solver: 3, $D = 0.1 \text{ m}^2/\text{s}$, $v = 2.00 \text{ m/s}$, $\Delta t = 2.00$, $\tau = 1.0 \times 10^{-4} \text{ s}$, $N_\rho = 501$]

Spatial zoom over edge; time sampling: last 10 time slices



- 0.70
- 0.72
- 0.74
- 0.76
- 0.78
- 0.80
- 0.82
- 0.84
- 0.86
- 0.88

- 0.70
- 0.72
- 0.74
- 0.76
- 0.78
- 0.80
- 0.82
- 0.84
- 0.86
- 0.88